INTRODUCTION: Please circle the correct answer, Duration: **60 minutes**

Name: ……………...................

1. Which of the following statement is true?

1. try block must be followed by catch and finally block both.

2. try block cannot include another try block.

3. try block must be followed by catch or finally block or both.

4. All of the above

2. C# class can extend multiple \_\_\_\_\_\_\_\_

1. Interface

2. Class

3. Abstract Class

4. Static Class

3. Which of the following datatype can be used with enum?

1. Float

2. String

3. Int

4. All of the above

4. Which of the following is a reference type in C#?

1. Boolean

2. String

3. Long

4. None of the above

5. Return type of Predicate <T>() is always a \_\_\_\_\_\_.

1. String

2. Boolean

3. Integer

4. Void

6. Which of the following is true for dynamic type in C#?

1. It allows compile time type checking.

2. It escapes compile time type checking.

3. It allows multiple time declaration of a variable.

4. None of the above.

7. Which of the following is right way of declaring an array?

1. int intArray [] = new int[5];

2. int[] intArray = new int[];

3. int[] intArray = new int[]{1, 2, 3, 4, 5};

4. int[] intArray = new int[5];

8. What is Nullable type?

1. It allows assignment of null to the reference type.

2. It allows assignment of null to the static class.

3. It allows assignment of null to the value type.

4. None of the above

9. String data type is \_\_\_\_\_\_.

1. Value type

2. Reference type

3. Mutable

4. Immutable

10. Data type of a variable declared using var will be assigned at \_\_\_\_\_\_\_.

1. Application Initialization time

2. Compile time

3. Runtime

4. None of the above

11. A table can have more than one combination of columns that uniquely identify the row in a table; each combination is called

1. Primary Key

2. Composite Key

3. Candidate Key

4. Foreign Key

12. Which of the following is not a valid data type in SQL server?

1. blob

2. money

3. int

4. nvarchar

13. Which SQL statement is used to return only different values?

1. SELECT DIFFERENT

2. SELECT UNIQUE

3. SELECT DISTINCT

4. All of the above

14. How many types of indexes in SQL server?

1. Unique and non-unique

2. Clustered and Nonclustered

3. DML and DLL

4. All of the above

15. With SQL, how can you return the number of records in the “Persons” table?

1. SELECT COLUMNS(\*) FROM Persons

2. SELECT COUNT() FROM Persons

3. SELECT COUNT(\*) FROM Persons

4. SELECT COLUMNS() FROM Persons

16. Which operator is used to select values within a range?

1. RANGE

2. BETWEEN

3. WITHIN

4. All of the above

17. Is finally block executed if there is no exception?

1. No

2. Yes

3. Sometime

4. None

18 Which statement is true about interface and abstract classes

1. An abstract class may only contain incomplete methods (abstract methods)

2. An interface may contain complete or incomplete methods

3. A class may implement several interfaces, A class can only inherit one abstract class

4. A class implementing an abstract class has to implement all the methods of the abstract class, but the same is not required in the case of an interface

19. Given the following code:

interface IDog

{

void Walk ();

void Run ();

void Lay ();

void Sit ();

}

Which of the following statements is true?

1. Any class that implements IDog must define at least one of the four listed methods.

2. Any class that implements IDog can override any of the four listed methods.

3. Any class that implements IDog can define any number of the four listed methods.

4. Any class that implements IDog cannot define any of the four listed methods.

5. Any class that implements IDog must define all four listed methods.

20. If int? i = 2; which of the following assigns the value 2 to j?

1. int j = i;

2. int j = i ?? 0;

3. int j = i ? i : 0;

4. All of the above

21. What does the keyword “virtual” declare for a method or property?

1. The method or property can have a duplicate name within the same assembly

2. The method or property doesn't exist exist in the context of the object at design time

3. The method or property can be overridden

4. The method cannot be overloaded

5. The method is accessible from within the class in which it is declared

22. How is method overriding different from method overloading?

1. Overriding a method simply involves having another method with the same name within the class

2. When overloading a method, you change the behavior of the method for the derived class

3. When overriding a method, you change the behavior of the method for the derived class

4. Overriding is the action of defining multiple methods with the same name, but with different parameters

5. None of the above

23. What is object serialization

1. Is a technique that enriches your programs in the following ways: It helps you to maximize code reuse, type safety, and performance

2. Is the process of converting an object into a stream of bytes in order to store the object or transmit it to memory, a database, or a file.

3. Is an anonymous function that you can use to create delegates or expression tree types.

24. Can you override private virtual methods?

1. No

2. Yes

25. When do you absolutely have to declare a class as abstract?

1. When at least one of the methods in the class is abstract.

2. When all the methods in the class is abstract

26. When will the garbage collector run?

1. Every 15 minutes

2. Once every day at 1:00 am

3. All the time

4. None of the above

27. You are creating a class that uses a lot of system resources. When you use objects of this class, you want to be able to free these resources as soon as you're done using the object. What do you do?

1. Write a destructor

2. Write a method void CleanUp() that the user can call when he is done with the object

3. Implement IDisposable

4. Implement IConvertible

28. A class of which only a single instance can exist

1. Singleton

2. Adapter

3. Decorator

4. Strategy

5. State

29. Match this design pattern:

Add responsibilities to objects dynamically

1. Singleton

2. Adapter

3. State

4. Strategy

5. Decorator

30. Match this design pattern: Encapsulates an algorithm inside a class

1. Singleton

2. Strategy

3. Adapter

4. Decorator

5. State

31. True or false: assignment with reference types copies the data inside the object.

1. True

2. False

32. Which clause specifies the condition for a group or an aggregate

1. Having Clause

2. Where clause

3. Distinct

4. Exists

33. Which clause returns only one copy of each set of duplicate rows selected?

1. Unique

2. Group By

3. Distinct

4. None of the above

34. Which operator is used in character string comparisons with pattern matching?

1. Like

2. Between.. And

3. Equal operator

4. Set operator

35. Can we Invoke Triggers?

1. Yes

2. No

36. \_\_\_\_\_\_\_\_ removes all rows from a table without logging the individual row deletions.

1. drop

2. delete

3. Truncate

4. Alter

5. update

37. what is difference between primary key and unique key?

1. Primary key does not allow a null value but unique key does allow for one null value

2. Primary key cannot be referenced to another table as FK.

3. we can have multiple primary keys in a table but unique is one and only one

4. Primary key will create a clustered index by default

5. 1 and 4

38. A query within a query where the inner query is evaluated for each row in the outer query is called?

1. Join

2. View

3. Correlated subquery

4. None of the above

39. ProdID Country Price

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1 South Africa 12.34

2 South Africa 12.34

3 NULL 12.35

4 NULL 12.99

5 Brazil 13.43

6 China 14.21

7 United States 12.00

8 United States 23.20

9 England 12.34

Select count(distinct country) from products?

Answer has been verified

1. 6

2. 7

3. 9

4. 5

40. Adding indexes (both clustered and nonclusterd) will decrease the amount of time that your INSERT, UPDATE and DELETE statement take

1. True

2. False

41. What is normalization

1. is the process of efficiently organizing data in a database

2. is the process of efficiently organizing indexes in a database

3. is the process of efficiently organizing keys in a database

4. is the process of efficiently organizing constraints in a database

5. None of the above

42. CREATE TABLE dogs (

id INTEGER NOT NULL PRIMARY KEY,

name VARCHAR(50) NOT NULL );

CREATE TABLE cats (

id INTEGER NOT NULL PRIMARY KEY,

name VARCHAR(50) NOT NULL);

INSERT INTO dogs(id, name) values(1, 'Lola');

INSERT INTO dogs(id, name) values(2, 'Bella');

INSERT INTO cats(id, name) values(1, 'Lola');

INSERT INTO cats(id, name) values(2, 'Kitty');

-- Expected output (in any order):

-- ----------------------------------------

-- Bella

-- Kitty

-- Lola

=> White a query that selects all distinct pet names.